# NPort 6250 Series
# Quick Installation Guide

**Second Edition, August 2007**

## 1. Overview

The NPort 6250 series of secure serial device servers provide reliable serial-to-Ethernet connectivity for a wide range of serial devices. The NPort 6250 supports TCP Server, TCP Client, UDP, and Pair-Connection operation modes to ensure the compatibility of network software. In addition, the NPort 6250 also supports Secure TCP Server, Secure TCP Client, Secure Pair-Connection, and Secure Real COM modes for security critical applications such as banking, telecom, access control and remote site management.

## 2. Package Checklist

Before Installing NPort 6250 secure device server, verify that the package contains the following items:

- 1 NPort 6250
- Document & Software CD
- Quick Installation Guide (this guide)
- Power Adaptor
- Product Warranty Statement
- 2 wall mount ears

*Optional Accessories*

- DK-35A: DIN-Rail Mounting Kit (35 mm)
- DIN-Rail Power Supply
- CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable
- CBL-RJ45M25-150: 8-pin RJ45 to male DB25 cable

NOTE: *Please notify your sales representative if any of the above items are missing or damaged.*

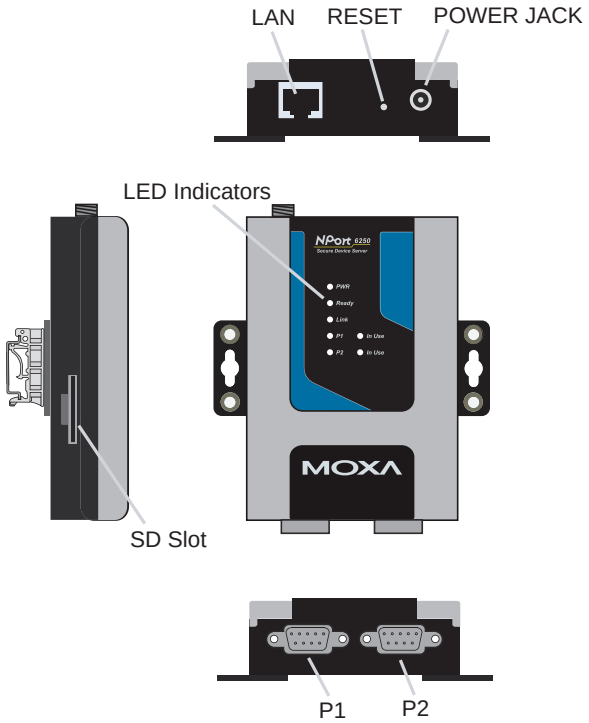
**P/N: 1802066500000**



## 3. Hardware Introduction

The NPort 6250 series has 3 models. A brief description of each model is given below:

- NPort 6250
  Two RS-232/422/485 serial ports and one 10/100Tx Ethernet port
- NPort 6250-S-SC
  Two RS-232/422/485 serial ports and one 100Fx single mode fiber Ethernet port
- NPort 6250-M-SC
  Two RS-232/422/485 ports and one 100Fx multi mode fiber Ethernet port



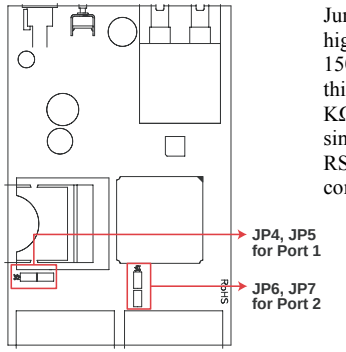

**Reset Button**—Press the Reset button continuously for 5 sec to load factory defaults: Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.



**LED Indicators**

| LED Name | LED Color | LED Function | |
|---|---|---|---|
| PWR | Red | Power is being supplied to the power input. | |
| Ready | Red | Steady on: | Power is on and the NPort 6250 is booting up. |
| | | Blinking: | Indicates an IP conflict, or, the DHCP or BOOTP server did not respond properly or a relay output occurred. Check the relay output first. If after resolving the relay output the RDY LED is still blinking, then there is an IP conflict, or the DHCP or BOOTP server did not respond properly. |
| | Green | Steady on: | Power is on and the NPort 6250 is functioning normally. |
| | | Blinking: | The device server has been located by the Administrator's Location function. |
| | Off | Power is off, or power error condition exists. | |
| Link | Orange | 10 Mbps Ethernet connection. | |
| | Green | 100 Mbps Ethernet connection. | |
| | Off | Ethernet cable is disconnected, or has a short. | |
| P1-P2 | Orange | Serial port is receiving data. | |
| | Green | Serial port is transmitting data. | |
| | Off | No data is being transmitted or received through the serial port. | |
| P1-P2 in-use LEDs | Green | Serial port was opened by server side software | |
| | Off | Serial port has not been opened by server side software | |

**Adjustable pull high/low resistor for RS-422/485 (150 KΩ or 1 KΩ)**




Jumpers are used to set the pull high/low resistors. The default is 150 KΩ. Short the jumpers to set this value to 1 KΩ. Do not use the KΩ setting with RS-232 mode, since doing so will degrade the RS-232 signals and shorten the communication distance.

## 4. Hardware Installation Procedure

**STEP 1**: Connect the 12-48 VDC power adaptor to the NPort 6250 and then plug the power adaptor into a DC outlet.

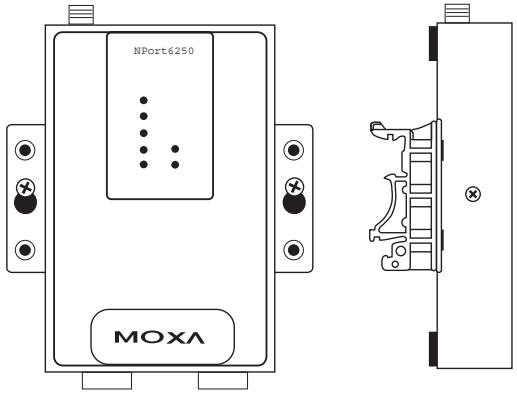
**STEP 2**: For first-time configuration, use a cross-over Ethernet cable to connect the NPort 6250 directly to your computer's Ethernet cable. For connecting to a network, use a standard straight-through Ethernet cable to connect to a hub or switch.

**STEP 3**: Connect the NPort 6250's serial port(s) to serial device(s).

**Placement Options**

The NPort 6250 can be placed flat on a desktop or other horizontal surface. In addition, you may use the DIN-Rail or Wall Mount options, as illustrated below.

**Wall Mount** **Din Rail**



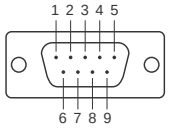

## 5. Software Installation Information

The Document & Software CD contains the User's Manual, NPort Search Utility, and the PComm Lite Suite. Insert the CD and follow the on-screen instructions. Please refer to the User's Manual for additional details on using the NPort Search Utility and PComm Lite.

## 6. Pin Assignments and Cable Wiring

**RS-232/422/485 Pin Assignments (male DB9)**

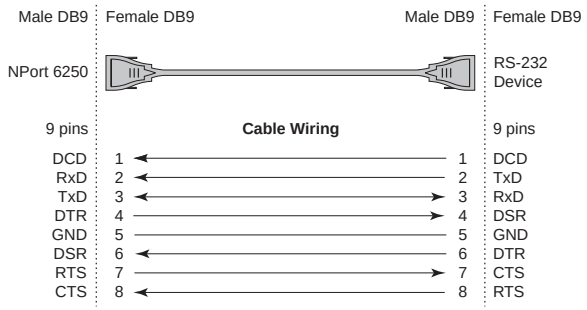
| Pin | RS-232 | RS-422 4-wire RS-485 | 2-wire RS-485 |
|---|---|---|---|
| 1 | DCD | TxD-(A) | --- |
| 2 | RXD | TxD+(B) | --- |
| 3 | TXD | RxD+(B) | Data+(B) |
| 4 | DTR | RxD-(A) | Data-(A) |
| 5 | GND | GND | GND |
| 6 | DSR | --- | --- |
| 7 | RTS | --- | --- |
| 8 | CTS | --- | --- |
| 9 | --- | --- | --- |



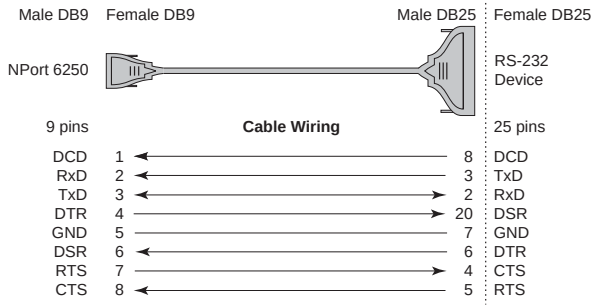



Two serial cables for connecting the NPort 6150 to a serial device can be purchased separately. The wiring diagrams for the two cables are shown below.

**CBL-RJ45M9-150: 8-pin RJ45 to male DB9**




**CBL-RJ45M25-150: 8-pin RJ45 to male DB25**




## 7. Specifications

**LAN**

Ethernet: NPort 6250: 10/100 Mbps, RJ45
NPort 6250-S-SC: Single-mode fiber
NPort 6250-M-SC: Multi-mode fiber

Protection: Built-in 1.5 KV magnetic isolation

**Serial**

No. of ports: 2
Interface: RS-232/422/485 (male DB9)

**Serial Communication Parameters**

Parity: None, Even, Odd, Space, Mark
Data bits: 5, 6, 7, 8
Stop bit(s): 1, 1.5, 2
Flow control: RTS/CTS, XON/XOFF, DTR/DSR
Speed: 50 bps to 921.6 Kbps



Console Port: RS-232 (please see the User's Manual for detailed operating instructions)
Memory: One SD socket

**Software Features**

Protocols: ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, HPPTS, SSL, PPPoE
Utilities: Windows utility for Windows98/ME/NT/2000/XP/2003/Vista/XP x64/2003 x64/Vista x64
Security Protocols: DES/3DES/AES
OS Driver Support
Real COM drivers:
Windows 95/98/ME/NT/2000/XP/XP x64/2003/2003 x64/Vista/Vista x64
Real TTY drivers:
Linux 2.4 and 2.6
Fixed TTY drivers:
SCO Unix, SCO OpenServer 5, OpenServer 6, UnixWare 7, UnixWare 2.1, SVR4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD 5, FreeBSD 6
Configuration: Web Console, Serial/Telnet Console, Windows Utility.

**Power Requirements**

Power input: 12 to 48 VDC

**Mechanical Specifications**

Material: \ Aluminum (1mm)

**Environment**

Operating Temperature: 0-55°C (32 to 131°F), 5 to 95% RH
Storage Temperature: -20 to 85°C (-4 to 185°F), 5 to 95%RH

**Regulatory Approvals**

EMC: FCC Class A, CE Class A
Safety: UL, CUL, TUV

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